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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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BELL, BOYD & LLOYD LLC
P. O. BOX 1135
CHICAGO, IL 60690-1135

EXAMINER	
BARQADLE, YASIN M	

ART UNIT	PAPER NUMBER
2153	

DATE MAILED: 02/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/903,755	BORDER, JOHN	
	Examiner	Art Unit	
	Yasin M. Barqadle	2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 November 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Response to Amendment

1. Applicant's arguments filed on November 23, 2005 have been considered and are deemed persuasive. However, they are moot in view of the new ground(s) of rejection.

2. Claims 1-30 are presented for examination.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Green in view of Kelly et al USPN. 20010048670.

The applied reference has a common (Hughes Electronics Corporation) with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective

U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

In referring to claim 1,

- A plurality of communication interfaces configured to receive and to forward messages according to a prescribed protocol:
  Green, Fig. **3b** shows a communication interface between a client and the network apparatus and a communication interface between a server and the network apparatus. Green, Fig. **4** shows the protocol used is TCP/IP
- A plurality of modules configured to process the messages to effect performance enhancing functions:
  "In FIG. 3b, representations of modules or components of the proxy are shown. A client transfers transport data or PDUs to a TCP stack in the program. The stack passes data on to the relay, which in turn passes it on to a connection manager." (Green, col. 8, lines 15-19)
- A plurality of buffers configured to store the received messages and messages that are generated by one of the plurality of modules:
  Green, Fig. **3b** shows stacks that store received messages and messages that are generated by one of the plurality of modules
- A portion of the plurality of buffers is shared by the plurality of modules based upon execution of a particular one of the performance enhancing functions,
  Green, Fig. **3b** shows a portion of the plurality of buffers is shared by the plurality of modules, said modules store PDUs generated by the modules, and said modules generate

PDUs bases upon execution of a particular one of the performance enhancing functions, such as security

Although Green shows substantial features of the claimed invention as shown in claim 1 (see 102 rejection above), Green does not show a data structure includes an expandable header to accommodate different message types. Nonetheless this feature is well known in the art and would have been an obvious addition to the system disclosed by Green as evidenced by Kelly et al.

In analogous art, Kelly et al discloses a system and a method and apparatus for managing bandwidth in a two-way satellite system. Kelly et al shows a data structure that includes an expandable header containing an 8-bit Message Type field for specifying the message type. (As shown in FIG. 6m, the Inroute packet format includes of a variable size header and 0 or more bytes of encapsulated datagrams and fig. 6o, 629e ¶ 0155-0157 and ¶ 0166. See also fig. 5b). Given these teachings, a person of ordinary skill in the art would have readily recognized the desirability and advantages of altering the system of Green so as to provide an expandable header, such as taught by Kelly et al, in order to accommodate different message types so that users can receive services such as digital package multicast delivery, multimedia services, and Internet access at a lower cost.

As per claim 2, Kelly et al teach the network apparatus according to claim 1, wherein the plurality of modules comprises a spoofing module configured to perform selective spoofing of one or more connections within the communication network by adding information to or deleting information from message to enhance performance of the communication network (¶ 0070 and ¶ 0156; ¶ 0108-0111), a connection module configured to multiplex a plurality of connections over a common backbone connection established over the communication network(gateway 413 performs traffic multiplex$5 ¶ 0043; ¶ 0063 and 0068), a prioritization module configured to prioritize access to the backbone connection ¶ 0041; 0094-0095 and ¶ 0108), and a path selection

module configured to determine a path among a plurality of paths supporting the connection over the communication network (0070-0077 and 0188. fig. 2, fig. 4 and 5a).

As per claim 3, Kelly et al teach the network apparatus according to claim 1, wherein the communication interface includes a local area network (LAN) interface, and a wide area network (WAN) interface, one of the plurality of buffers being designated as a LAN-to-WAN buffer that stores the receive messages in a LAN-to-WAN direction, another one of the plurality of buffers being designated as a WAN-to-LAN buffer that stores the receive messages in a WAN-to-LAN direction (see figs 2, 4 and 5a and (¶ 0055-0056; ¶ 0090-0098 and ¶ 0108-0112).

As per claim 4, Kelly et al teach the network apparatus according to claim 3, wherein the WAN is satellite network (fig. 1, 107).

As per claim 5, Kelly et al teach the network apparatus according to claim 1, wherein the data structure of the plurality of buffers comprises:

a specific header field that stores platform specific information; a common header field the stores information known to the plurality of modules; a payload field; an offset field that indicates start of the payload field; and a header growth field that provides a variable header length (see fig 5a and figs. 6a, 6e-g and 6m-6p).

As per claim 6, Kelly et al teach the network apparatus according to claim 5, wherein the common header field comprises: a flag field that specifies direction of message flow; a

connection handle field that specifies handle of a backbone connection; and an owner specific field that stores an owner specific header (see fig 5a and figs. 6a, 6e-g and 6m-6p).

As per claim 7, Kelly et al teach the network apparatus according to claim 1, wherein the prescribed protocol is the Transmission Control Protocol (TCP) (¶ 0045 and ¶ 0070-0071).

As per claims 8-28, these claims have similar limitations found in corresponding claims of 1-7 above. Therefore, they are rejected with the same rationale.

As per claim 29, Kelly et al teach a memory for storing information for providing performance enhancements of a communication network (see fig. 11, memory 1107 and data structures 5a and 6a-6p), the memory comprising a data structure including: a specific header field that stores platform specific information; a common header field the stores information known to the plurality of modules; a payload field; an offset field that indicates start of the payload field; and a header growth field that provides a variable header length (see fig 5a and figs. 6a, 6e-g and 6m-6p).

As per claim 30, Kelly et al teach memory according to claim 29, wherein the common header field comprises: a flag field that specifies direction of message flow; a connection handle field that specifies handle of a backbone connection; and an owner specific field that stores an owner specific header (see fig 5a and figs. 6a, 6e-g and 6m-6p).

Conclusion

The prior made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yasin Barqadle whose telephone number is 571-272-3947. The examiner can normally be reached on 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Burgess can be reached on 571-272-3949. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Information regarding the status of an application may be obtained form the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either private PAIR or public PAIR system. Status information for unpublished applications is available through private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

YB

Art Unit 2153

ABDULLAHI SALAD
PRIMARY EXAMINER